

Appl. No.: 10/775,833
Amdt. dated October 2, 2007
Reply to Office action of August 2, 2007

Claim 1 (Previously presented) A method for increasing screen space of a computing device using semi-transparent functional control images on the screen comprising the steps of:

determining the size of functional control images for display on the screen;
determining the overall display area of the screen of the computing device;
determining the maximum number of control images that can be displayed in the overall area of the screen such that no functional images have any overlap on the screen;
and
continually displaying functional control images on the screen of the computing device over nonfunctional screen and content and in a semitransparent state such that nonfunctional screen content covered by the displayed functional control images remains visible and such that no functional control images simultaneously share any of the same space on the screen.

Claim 2 (Canceled)

Claim 3 (Previously presented) The method as described in claim 2 further comprising after said maximum control image determining step, the steps of:

in response to a user request, retrieving an application program;
determining the number of control images for display from retrieved program;
and
when the number of control images is less than the maximum number of images that can be displayed on that screen, simultaneously displaying all of the control images for that program.

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Claim 4 (Currently amended) The method as described in claim 1 further comprising after said maximum control image determining step, the steps of:

- in response to a user request, retrieving an application program;
- determining the number of control images for display from retrieved program;
- when the determination is that the number of control images for display is greater than the maximum number of control images for that screen, ranking the control images for that program; and
- displaying the control images in an order according to the rank of the control images.

Claim 5 (Original) The method as described in claim 4 wherein said displaying step further comprises the steps of:

- displaying a control image on the screen;
- incrementing a control image display number count;
- comparing the display count with the maximum number of control images for that screen; and
- displaying the next control image on the screen when the display count is less than the maximum number of control images for that screen.

Claim 6 (Original) The method as described in claim 4 wherein said displaying step further comprises the steps of:

- displaying a control image on the screen;
- incrementing a control image display number count; comparing the display count with the maximum number of control images for that screen; and
- terminating the method when the display count is equal to the maximum number of control images for that screen.

Claim 7 (Original) The method as described in claim 4 wherein the ranking process by prioritizing the control images according to the frequency of use of the control image.

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Claim 8 (Previously presented) A computer program product in a computer readable medium for increasing screen space of a computing device using semi-transparent functional control areas on the screen comprising:

instructions determining the size of functional control images for display on the screen;

instructions determining the overall display area of the screen of the computing device; and

instructions for continually displaying functional control images on the screen of the computing device over nonfunctional screen and content and in a semitransparent state such that nonfunctional screen content covered by the displayed functional control images remains visible and such that no functional control images simultaneously share any of the same space on the screen.

Claim 9 (Original) The computer program product as described in claim 8 further comprising before said displaying instructions, instructions for determining the maximum number of control images that can be displayed in the overall area of the screen such that no images have any overlap on the screen.

Claim 10 (Previously presented) The computer program product as described in claim 9 further comprising after said maximum control image instructions:

in response to a user request, instructions for retrieving an application program;

instructions for determining the number of control images for display from retrieved program; and

when the number of control images is less than the maximum number of images that can be displayed on that screen, instructions for simultaneously displaying all of the control images for that program.

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Claim 11 (Original) The computer program product as described in claim 9 further comprising after said maximum control image determining instructions:

in response to a user request, instructions for retrieving an application program;
instructions for determining the number of control images for display from retrieved program;
when the determination is that the number of control images for display is greater than the maximum number of control images for that screen, instructions for ranking the control images for that program; and
instructions for displaying the control images in an order according to the determined rank of the control images.

Claim 12 (Original) The computer program product as described in claim 11 wherein said displaying instructions for further comprise:

instructions for displaying a control image on the screen;
instructions for incrementing a control image display number count;
instructions for comparing the display count with the maximum number of control images for that screen; and
instructions for displaying the next control image on the screen when the display count is less than the maximum number of control images for that screen.

Claim 13 (Original) The computer program product as described in claim 11 wherein said displaying instructions further comprise:

instructions for displaying a control image on the screen;
instructions for incrementing a control image display number count;
instructions for comparing the display count with the maximum number of control images for that screen; and
instructions for terminating the method when the display count is equal to the maximum number of control images for that screen.

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Claim 14 (Previously presented) A computing device using semi-transparent functional control areas on the screen comprising:

a processing unit incorporated within the computing device;

a screen for displaying information to the user of the computing device, said screen comprising a content layer and a control layer, said control layer further comprising non-overlapping semi-transparent functional control areas on the screen;

control software for implementation of control functions corresponding to the semi-transparent control areas; and

a software module for ranking control images that are to be displayed and for continually displaying functional control images on the screen of the computing device over nonfunctional screen and content and in a semitransparent state such that nonfunctional screen content covered by the displayed functional control images remains visible and such that no functional control images simultaneously share any of the same space on the screen.

Claim 15 (Original) The computing device as described in claim 14 wherein said control layer overlays said content layer on said screen.

Claim 16 (Original) The computing device as described in claim 14 wherein the control areas and said control software comprise a user interface for the computing device.

Claim 17 (Original) The computing device as described in claim 16 wherein said screen is a touch control screen.

Claim 18 (Original) The computing device as described in claim 14 further comprising control buttons not positioned on the device screen.